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FRIDAY, NOVEMBER 16, 1900.

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THE ADMINISTRATION OF GOVERNMENT SCIENTIFIC WORK.

A CORRESPONDENT, whose letter is printed in another column, calls attention to the oft-recurring questions of the superintendency and organization of the U. S. Coast and Geodetic Survey. Whatever may be the merits or demerits of the considerations adduced by this correspondent with reference to matters of detail, it is evident that the essentials of these questions are quite as important now as they have been at any time during the past half-century. These essentials are, in fact, not limited in their application to any one scientific bureau of the government, but are of equal importance to all of them. The question of reorganization of the Naval Observatory is now pending, after a long and painstaking investigation by a committee specially delegated to consider the matter; and the question of the establishment of a new bureau which may take charge of the indispensable business of national standards is likely to come up in the near future. The mode of selection of a head, or director, of any one of these scientific bureaus is, then, or at least ought to be, a matter of concern to all men of science; for whatever mode is

applied in any case is likely to serve as a precedent for the next.

It goes without saying that the method of selection of such heads is, in our country, an unsatisfactory one. Not that this method always secures incompetent appointees; many eminent men have come thus into the government service in spite of the method; but it presents an open door to the formidable class of opportunists whose claims to high office are not based on professional qualifications. Thus, not infrequently, notoriously unfit men are placed temporarily in charge of the highest grades of scientific work. Their ridiculous careers in such rôles are generally short, but yet long enough to establish precedents which place-hunters of all sorts are not slow to utilize. Hence it follows that the tenure of office of the heads of our scientific bureaus is short; that the conduct of bureau work is usually less effective than it ought to be; and that the employees in such bureaus are periodically distracted with the fear that at the next turn of the kaleidoscope they may find themselves officially decapitated. It is a fact, we believe, that the superintendents of the Coast and Geodetic Survey have succeeded one another during several decades with a rapidity only surpassed by that of recent political events in China. One may well marvel how, under such adverse conditions, it has been possible for this bureau to accomplish so much first-class scientific work as is actually recorded in its bulky annual reports.

But the practical enquiry in this connection is, 'what are we going to do about it?' How long is it going to be possible, for ex-

ample, for mere 'influence,' often prepared in the most shameless manner, to stampede the President of the United States into appointing to professorships of mathematics in the navy men who know nothing of that science, or into appointing to the superintendency of the Coast and Geodetic Survey men who may convert that bureau into a manufactory of ten-place logarithms?

Our correspondent suggests, we think, a practicable way out of the difficulty. It does seem proper, as he urges, that the scientific organizations of our country should interest themselves in matters which, according as they are well or ill administered, must reflect credit or discredit on American science. Why may not the National Academy of Sciences become in fact, as it is by law entitled to be, the adviser of the government in matters scientific? Or, if it is for any reason impracticable for this Academy to fulfill its natural functions, why may we not have a board of regents, similar to that of the Smithsonian Institution, whose duty it shall be to give the government advice concerning the direction of national scientific work? There is no reason, apparently, why we may not have such an advisory body unless it be the inadequate reason of 'general apathy.' Our government could, if it would, and our scientific organizations can, if they are willing to make the effort, secure just such expert advice as is needed free of cost. We venture to assert, for example, that if either the National Academy of Sciences or the American Society of Civil Engineers were asked to do so it would speedily suggest two or three eminently worthy candidates for the

position of superintendent of the Coast and Geodetic Survey or for the directorship of the proposed bureau of standards. Moreover, it is believed that either of these societies would be willing to cite in the public prints reasons for the fitness of such candidates based on lists of their published works and on histories of their professional careers. It is doubtful, of course, whether an eminently fit person would, under existing circumstances, accept such a position; but the establishment of a high standard of appointment would help more than any thing else to make the position worthy of an able man and to make his tenure of office reasonably secure.

Has not the time arrived when the scientific societies of the country should unite in an effort to raise the standard of qualifications for a directorship of government scientific work? We believe the time has come; and we believe also that Congress would welcome the advice of a representative committee of scientific men of the country on all questions relating to the work and administration of our scientific bureaus.

It may be said, however, that experience has revealed well-nigh insuperable difficulties in the way of the needed changes. One must confess, in fact, that the reforms of the democratic and republican administrations of the Coast and Geodetic Survey during the past twenty years have corrected only minor evils; and that the efforts of the past thirty years to get the Naval Observatory on an astronomical rather than on a naval footing have proved almost fruitless. But depressing as this experience is, it ought not to suppress the optimism of pa-

triotic men of science. It ought rather to lead them to renewed studies of these perennial questions, especially since the prosecution of scientific work is apparently coming to be more and more a part of the business of civilized nations the world over. Possibly the reformers have failed hitherto because they have sought to accomplish too much, or because they have sought to accomplish the wrong things. The problems presented are evidently very complex, and their solution may be unattainable except by the method of successive approximation. Perhaps we should be content as a first step to secure the necessary legislation for the creation of a board of advisers with reference to appointments to prominent positions in the scientific bureaus. It is hardly conceivable that such a board would, if composed of well-known men, ever propose any one conspicuously unfit for official position. Once establish the custom of choosing only men of good scientific repute to direct scientific work, and there would be little danger of relapse to the present haphazard system. In short, the plane of reference for appointments to national posts of honor and trust in science needs to be raised at least to the level of that which is applied in the case of appointments to justiceships in the Supreme Court. When the office seeks the man, and when the office is worthy of the untiring devotion essential to eminence in science, our government will secure officers of whom we need not feel ashamed, and the petty annoyances of which our correspondent complains, in a measure justly, no doubt, will disappear without special attention.